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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,697	04/04/2002	Takashi Mimura	1061-02	9428

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EXAMINER

VO, HAI

ART UNIT	PAPER NUMBER
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1771

8

DATE MAILED: 07/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/070,697	Applicant(s) MIMURA ET AL.	
	Examiner Hai Vo	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishii et al (US 5,710,856) in view of Miyakawa et al (US 5,672,409). Ishii discloses a light reflective sheet comprising a porous resin sheet and a protective layer laminated on at least one surface of the porous resin sheet (abstract). The protective layer contains a light stabilizer component such as benzophenone (column 14, lines 45-48, column 8, line 61). The protective layer is formed from a copolymer of methacrylic resin (column 10, line 65 et seq.). Ishii is silent as to a porous resin sheet made of a polyester resin as claimed by Applicants. It appears that Ishii and Miyakawa references are related to a light reflective sheet of a liquid crystal display. The reflective sheet of Miyakawa and Ishii have a light reflectance at least 85%, measured on the protective layer exposed to light having a wavelength of from 400 to 700 nm within the claimed range (Miyakawa, table 1 vs. Ishii, table 1). Miyakawa teaches the voided B-layer made of a polyester resin from the viewpoint of water resistance, chemical resistance and durability (column 3, lines 40-45). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the polyolefin by the polyester resin to form a porous resin layer of Ishii motivated by the desire to provide improved water

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resistance, chemical resistance and durability, which is important to the invention of Ishii, thus suggesting the modification.

With regard to claims 4 and 5, Table 1 of Ishii teaches a light reflective sheet having a light reflectance greater than 85%. Ishii does not specifically disclose the degree of glossiness of the light reflective sheet. However, the light reflective sheet of Ishii as modified by Mikayawa is structurally the same and made of the same materials as Applicants' article. It appears that the light reflective sheet of Ishii as modified by Mikayawa has a light reflectance within the claimed range. It is not seen that the light reflective sheet of Ishii as modified by Mikayawa would have possessed the degree of glossiness outside the range as claimed by the present invention. This is in line with Ex part slob, 157 USPQ 172. It seems from the claim, if one meets the structure recited, the properties must be met or Applicant's claim is incomplete.

With regard to claim 11, Ishii teaches the coating layer further comprising inorganic fine particles (column 13, lines 60-62).

With regard to claim 12, Ishii teaches a porous resin layer comprising a fluorescent brightener (column 8, lines 50-57).

3. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyakawa et al (US 5,672,409) in view of Ishii et al (US 5,710,856). Miyakawa teaches a white polyester film for a reflecting structure for surface light sources comprising a three layer structure A/B/A wherein the B-layer contains fine voids (column 6, lines 35-40). The A-layer of Miyakawa corresponds to Applicants' coating layer. Miyakawa is silent as to the A-layer comprising a light stabilizer. Ishii

discloses a light reflective sheet comprising a porous resin sheet and a protective layer laminated on at least one surface of the porous resin sheet (abstract). The protective layer contains a light stabilizer component such as benzophenone to improve light resistance to ultraviolet light (column 14, lines 45-48, column 8, line 61, and column 13, lines 5-20). It appears that Ishii and Miyakawa references are related to a light reflective sheet of a liquid crystal display. The A-layer of Miyakawa and the protective layer of Ishii are composed of a polyester resin and inorganic fine particles (Miyakawa, column 6, lines 35-42 vs. Ishii, column 13, lines 60-62). The reflective sheets of Miyakawa and Ishii have a light reflectance at least 85%, measured on the protective layer exposed to light having a wavelength of from 400 to 700 nm within the claimed range (Miyakawa, table 1 vs. Ishii, table 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a light stabilizer into the A-layer of Miyakawa motivated to improve light resistance to ultraviolet light, which is important to the invention of Miyakawa, thus suggesting the modification.

With regard to claims 2 and 3, Miyakawa teaches a reflector comprising a white film and a coating layer that comprises a mixture of acrylic resin, silica particles, isocyanate and fluorescent whitening agent being applied on the surface of the composite white film (example 5). Miyakawa is silent as to a light stabilizer in the coating layer. Ishii discloses a light reflective sheet comprising a porous resin sheet and a protective layer laminated on at least one surface of the porous resin sheet (abstract). Ishii discloses the protective layer containing a light stabilizer component

such as benzophenone to improve light resistance to ultraviolet light (column 14, lines 45-48, column 8, line 61, and column 13, lines 5-20). It appears that Ishii and Miyakawa references are related to a light reflective sheet of a liquid crystal display. The coating layer of Miyakawa and the protective layer of Ishii are made of a copolymer of an acrylic resin, inorganic fine particles and fluorescent brightener (Miyakawa, example 5 vs. Ishii, column 13, lines 60-62). The reflective sheets of Miyakawa and Ishii have a light reflectance at least 85%, measured on the protective layer exposed to light having a wavelength of from 400 to 700 nm within the claimed range (Miyakawa, table 1 vs. Ishii, table 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a light stabilizer into the coating layer of Miyakawa motivated to improve light resistance to ultraviolet light, which is important to the invention of Miyakawa, thus suggesting the modification.

With regard to claims 4 and 5, table 1 of Miyakawa reads on the claim limitations.

With regard to claims 6 and 7, Miyakawa teaches the white film is formed from a resin composition consisting essentially of polyester (column 3, lines 25-45). Miyakawa teaches the voids are formed by dispersing a polymer incompatible with a polyester and stretching the film uniaxially or biaxially (column 3, line 59 et seq.).

With regard to claims 8, 9 and 11, Miyakawa teaches the white film is a laminate of two film layers A/B wherein the A-layer contains inorganic particles and the B-layer contains fine voids (column 6, lines 35-42).

With regard to claim 10, Miyakawa does not specifically disclose the A-layer of the composite white film having the fine voids. However, Miyakawa teaches the A-layer containing the inorganic fine particles and the sheet of the laminated polymers A/B/A was stretched uniaxially or biaxially (example 3). It is the examiner's position that the voids in the A-layer would be inherently present. It is how the voids created around the inorganic particles through stretching. Miyakawa does not specifically disclose the mean diameter of the cross section of the voids being smaller in the surface layer than in the inner layer. However, it appears that Miyakawa and Applicants are using the inorganic particles having the same particle size and the same amounts in the A- and B-layers (Miyakawa, column 6, lines 40-42, 60-65 vs. Applicants' specification, pages 10 and 22). Further, Miyakawa is using the same approach to form the voids in the white film. It is not seen that the void of Miyakawa would have had a mean diameter different from Applicants' void.

With regard to claim 12, Miyakawa teaches the B-layer containing a fluorescent brightener (example 2).

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-6, 8-12 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 5,672,409 in view of Ishii et al (US 5,710,856) because of the reasons set forth in the paragraph above.

Response to Arguments

6. Applicant's arguments with respect to claims 1-3 have been considered but are moot in view of the new ground(s) of rejection.
7. The 102 art rejections and claim objections have been overcome by the present amendment.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from

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the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (703) 605-4426.

The examiner can normally be reached on Tue-Fri, 8:30-6:00 and on alternating Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

HV
July 26, 2003



TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700